

TAXONOMIC AND NOMENCLATURAL STATUS OF *MYRIONEURON* R. BR. EX HOOK. F. (RUBIACEAE)¹

D.B. DEB²

Key words: plant taxonomy, Rubiaceae, *Myrioneuron*, generic status, nomenclature

Taxonomic and nomenclatural status of *Myrioneuron* R. Br. ex Hook.f. (Rubiaceae) is discussed. The generic status is upheld. Nomenclature is clarified. Lectotypes of the genus and the type species are selected.

INTRODUCTION

The genus *Myrioneuron* (Rubiaceae) is not yet included in *Index Nominum genericorum* (Plantarum). R.C. Bakhuizen (1975: 26, 29) treated *Myrioneuron* R. Br. as synonymous with *Mycetia* Reinw., and those of authors, non R. Br. as synonymous with *Keenania* Hook. f. Van Steenis (1987: 106) treated *Myrioneuron* R. Br. ex Kurz 1870 = ? *Keenania*. *Myrioneuron* spp. (in Herb.) = *Keenania*. He (l. c.) further included this name as a synonym of *Mycetia*. Robbrecht (1988: 244) treated *Myrioneuron* R. Br. ex Kurz, nomen = *Keenania*?

Diane Bridson of Kew Herbarium (in lit.) drew my attention to the situation on examining some Indian material determined by me as *Myrioneuron nutans*. She further observed "neither Dr. Brummitt, nor I find any problem in accepting *Myrioneuron* R. Br. ex Hook. f. 1873 as valid (assuming *Myrioneuron* R. Br. ex Kurz 1870, nomen)". Dr. Dan H. Nicolson, Nomenclatural Editor, *Taxon*, in response to my letter in this connection, advised me to publish a note.

HISTORY OF NOMENCLATURE

Nathaniel Wallich, the then Superintendent of the Botanic Garden, Calcutta, in 1828, took to London, all the specimens so far accumulated in CAL and brought out those stored in the East India Company's *India Museum*, London (which was dispersed in 1879), with a view to sort out the specimens and name them. He sought help and

assistance from contemporary botanists, who were interested in tropical plants.

"A numerical list of the dried plants in the East India Company's Museum" (1832), commonly known as *Wallichian Catalogue* (*Wall. Cat.*), more correctly, *Wallich num. List* is the result of that effort. Robert Brown of British Museum named many plants of the Rubiaceae. *Wall. num. List* No. 6225 in page 211, 1832 names *Myrioneuron* R. Br., under which *M. nutans* R. Br. is named for two gatherings: 6225a, collected from Sillet, in 1821, by Francis de Silva and 6225b from Gualpara, Assam, on 27th June, 1808 collected by Buchanan (later Francis) Hamilton. The latter was named by Hamilton as *Bertiera nutans* Ham. in *Scheda* (nom. nud.)

Robert Brown postulated generic status for *Myrioneuron* to accommodate these two gatherings and used the specific name given by Hamilton on the herbarium specimens, i.e. *Myrioneuron nutans* R. Br. as is evident in *Wall. Num. List* (l. c.). The taxon remained in name only until J.D. Hooker, in *Benth. & Hook. f. Gen. p1. 2: 69. 1873* validated the generic name with a description. He did not name any species therein. Art. 37 of ICBN (1988) clearly states that prior to Jan. 1, 1958, for validity of publication of a new genus, it was not essential to name the type species.

Kurz (1877:55) validated *M. nutans* R. Br. with a specific description for the material collected from Chittagong by C.B. Clarke, working as the first Curator of the Herbarium, Royal Botanic Garden, Calcutta, Kurz must have studied the Wallichian specimens of *M. nutans* R. Br. extant in CAL. Citation of R. Br. as the author of the species evidently supports this contention. Thus *M. nutans*

¹Accepted June 1994.

²Central National Herbarium, Indian Botanic Garden, Howrah, India.

TABLE I
SIGNIFICANT DIFFERENCES AMONGST THE ALLIED GENERA

	<i>Keenaria</i> Hook. f.	<i>Mycetia</i> Reinw.	<i>Myrioneuron</i> R.Br. ex. Hook. f.
1.	Subherbaceous shrubs; branches without spongy swollen corky bark.	Shrubs; branches with conspicuous spongy swollen corky bark.	Small shrubs; branches with conspicuous spongy swollen corky bark.
2.	Leaves membranous, without marginal stalked glands.	Leaves membranous, with marginal stalked glands.	Leaves coriaceous or subcoriaceous, without marginal stalked glands.
3.	Stipules somewhat recurved, membranous, entire, without marginal stalked glands.	Stipules rather large, membranous or subcoriaceous, tardily caducous, with marginal stalked glands, sometimes toothed and bifid above.	Stipules large, coriaceous, erect, bifid above, without marginal stalked glands.
4.	Inflorescence in terminal heads. capitata	Inflorescence terminal or axillary paniculate, corymbiform or capitate cymes.	Inflorescence terminal or rarely axillary or corymbose cymes.
5.	Peduncle short.	Peduncle short or long.	Peduncle short, stout.
6.	Flowers sessile, apparently unisexual, heterostylous.	Flowers pedicelled, bisexual, heterostylous, sometimes bi or triformous.	Flowers short pedicelled, bi sexual, not heterostylous.
7.	Bracts and floral parts without stalked glands.	Bracts and floral parts with stalked glands.	Bracts and floral parts without stalked glands.
8.	Calyx lobes 5 or 6, longer than corolla.	Calyx lobes 4-6, longer or shorter than corolla.	Calyx lobes 5, longer than corolla.
9.	Corolla lobes 5.	Corolla lobes 4-6.	Corolla lobes 5-6.
10.	Stamens 5.	Stamens 4-6.	Stamens 5.
11.	Ovary 2-loculed; stigmas 2, ovate.	Ovary 2-6 loculed; stigmas 2, linear.	Ovary 2 loculed; stigmas 2, lanceolate.
12.	Fruit a capsule, 2 loculed, with hard endocarp.	Fruit a berry, fleshy or not; 2 or 5-6 loculed.	Fruit a berry, 2-cocccous; cocci horny.

R. Br. ex Kurz (1877) is the validating description of the species which is selected as the lectotype of the genus. *Wall. Num. List* No. 6225a (the left hand specimen) collected by *Francis de Silva* from Silet, extant in CAL is selected as the lectotype of the species.

Taxonomic status: The genus *Myrioneuron* R. Br. ex Hook. f. is apparently allied to *Keenania* Hook. f. and *Mycetia* Reinw. Characteristics of these 3 allied genera are given below:

Keenania Hook. f. *Fl. Brit. Ind.* 3: 101. 1880.

Small subherbaceous shrubs. Leaves membranous; stipules somewhat recurved, membranous. Flowers sessile, in terminal solitary shortly peduncled involucrate heads; bracts imbricating, concave, coriaceous, unequal, outer ones orbicular, inner linear-oblong or spatulate; bracteoles in pair, spatulate, coriaceous, equalling the flowers. Flowers unisexual. Hypanthium fleshy, shortly oblong; calyx lobes 5 or 6, imbricate, unequal, erect, oblong or spatulate, coriaceous, concave. Corolla about as long as the calyx lobes; corolla tube inflated, glabrous, with a ring of stiff hairs at the throat; lobes 5, valvate, short, orbicular ovate, apiculate, papillose externally. Stamens 5, epipetalous at the base of broad lobed disc; filaments short; anthers small, linear. Ovary 2-loculed; style short; stigmas 2, flat, ovate; ovules numerous on globose placenta, adnate to the membranous septum. Fruit a capsule with hard endocarp.

Type species: *Keenania modesta* Hook. f.

Distribution: 5 species in India (Chachar, Assam) and SE. Asia.

Mycetia Reinw. in *Bl. Bijdr.* 986. 1826 & *Sylb. Ratisb.* 2: 9. 1928. *Syn. Adenosacme* Wall. ex Endl. *Gen.* 1: 552. 1838.

Shrubs; branches with a conspicuous spongy swollen corky bark. Leaves membranous, stalked glandular at the margin; stipules tardily caducous, oblong or lanceolate, stalked glandular at the margin, sometimes toothed, and bifid above. Flowers pedicelled, bisexual, heterostylous, sometime bi or tri-formous, in axillary or terminal peduncled paniculate or corymbiform, often with stalked glands in floral parts. Hypanthium globose or hemispherical;

calyx lobes 4-6, persistent, stalked glandular. Corolla tube cylindrical; lobes 4-6, valvate in bud. Stamens 4-6, inserted in the tube at different positions; filaments short; anthers linear-oblong, dorsifixed. Disc annular. Ovary 2 or 3-6 loculed; style slender or thickened above; stigmas 2, linear; ovules numerous on fleshy peltate placenta. Berry globose, white, spongy or not, indehiscent or irregularly dehiscent, 2-6 loculed. Seeds many, minute, angled; testa dotted; endosperm fleshy; embryo minute.

Type species: *Mycetia cauliflora* Reinw.

Distribution: About 25 species, India to S. China, Vietnam, W. Malesia.

Myrioneuron R. Br. ex Hook. f. in *Benth. & Hook. f. Gen. Pl.* 2:69, 1873.

Shrubs; branches stout, with a conspicuous spongy swollen corky bark. Leaves large, coriaceous or subcoriaceous; stipules large, coriaceous, bifid above. Flowers on short stout peduncle in terminal or rarely axillary capitate or corymbose cymes, erect or nodding; bracts involucrate, rigid, coriaceous; pedicels very short, one bracteolate. Hypanthium ovoid; calyx tube very short, lobes persistent, rigid. Corolla cylindrical, 5-toothed, valvate in bud, densely villous inside, shorter than the calyx lobes. Stamens 5, adnate to the corolla tube. Disc cushion like. Ovary 2-locular; style short; stigmas 2, lanceolate, cohering; ovules many on hemispherical placenta. Berry ovoid or globose, dry, sometimes fleshy, 2-coccos; cocci horny, slowly dehiscent. Seeds black, many, minute, angled, flat; testa pitted, albumen fleshy; embryo minute.

Type species: *Myrioneuron nutans* Wall. ex Kurz

Distribution: 3 species in E. India, Bangladesh (Chittagong) and Myanmar.

DISCUSSION AND CONCLUSION

Keenania Hook. f. was described as a monotypic genus on the basis of a gathering by R.L. Keenan from Duarbund, Cachar, Assam. The type specimen of the type species *Keenania modesta* Hook. f. of the genus was based on a specimen with sterile anthers and it did not have any fruit. This

species has never been recollected. Species described under this genus subsequently from SE. Asia have flowers apparently heterostylous, and the heterostyly is probably combined with dioecism (Bremekamp 1947: 191). The fruit is a two-loculed capsule with hard endocarp; flowers are sessile, apparently unisexual and heterostylous; the inflorescence is in terminal heads; leaves, stipules, bracts and calyx lobes are without stalked glands; branches are without spongy swollen corky bark. These characteristics keep this genus distinct from others.

The genus *Mycetia* Reinw. with about 25 species is more widely distributed. The ranges of vegetative and reproductive characters are much more variable than those in the other two. Leaves, stipules, bracts and calyx lobes are with stalked glands at margins; the inflorescence is terminal or axillary paniculate corymbiform or capitate cymes; flowers are bisexual, heterostylous; the fruit is fleshy or not, 2 or 5-6-loculed. These characters distinguish *Mycetia* Reinw. from others.

Short pedicelled bisexual, isostylous flowers, 2 coccous fruits with horny cocci; bifid stipules; leaves, stipules, bracts, calyx lobes, etc., without marginal stalked glands, etc., distinguish *Myrioneuron* R. Br. ex Hook. f. from the other two.

In the branches with a conspicuous spongy

swollen corky bark and in the ranges of vegetative and reproductive characters sometimes extending to such an extent that it appears that *Mycetia* is more akin to *Myrioneuron* and farther away from *Keenania*.

Myrioneuron R. Brown ex J.D. Hooker in Benth. & Hook. f., Gen. Pl. 2: 69. 1873 (T. non designatus).

Myrioneuron R. Brown, *nom.nud.*, in Wallich, Num. List 211, No. 6225. 1832; Steud., *nom.* 2: 174. 1841; Walp., Rep. 2: 525. 1843; Endl., Gen. 566. 1838; Lindl., veg. Kingdom 765. 1847 (g. Cinchonaceae). *Lectotype* selected here: *M. nutans* R. Brown ex Kurz.

M. nutans R. Brown ex Kurz, For. Fl. Brit. Burma 2: 55. 1877. *Lectotype* selected here: Sillet, 1821, *Francis de Silva s.n.* ex Wallich, Num. List No. 6225a (the left-hand specimen) in CAL is selected here as the lectotype.

ACKNOWLEDGEMENTS

I am thankful to Mrs. Diane Bridson (K) for drawing my attention to the uncertainty of the generic status, and to Dr. Dan H. Nicolson, Nomenclatural Editor, Taxon, Smithsonian Institution, Washington D.C., USA, for his views on nomenclature and suggestion to publish this note.

REFERENCES

- BAKHUIZEN VON DEN BRINK, R.C. (1975): *Thai For. Bull. Bot.* 9: 15-35.
- BREMEKAMP, C.E.B. (1947): A monograph of the genus *Pomazota* Ridley. *J. Arn. Arb.* 28: 186-203.
- ENDLICHER, S.L. (1838): *Genera Plantarum*, part 8. Wien.
- HOOKE, J.D. (1873): Bentham, G. & J. D. Hooker, *Genera plantarum*, Vol. 2. London.
- HOOKE, J.D. (1880): *The Flora of British India*, Vol. 3, London.
- KURZ, S. (1877): *Forest Flora of British Burma*. Calcutta.
- LINDLEY, JOHN (1847): *The Vegetable Kingdom*, ed. 2.
- ROBBRECHR, E. (1988): *Tropical Woody Rubiaceae*. Oper. Bot. Belz. I. Belzium.
- VAN STEENIS, C.E.C. (1987): Checklist of generic names in Malesia Botany.
- STEUDEL, E.G. (1841): *Nomenclator botanicus*, Vol. 2. Stuttgart, Tubingen.
- WALLICH, NATHANIEL (1832): A numerical list of dried plants in the East India Company's Museum. London.
- WALPER, W.G. (1843): *Repertorium botanices systematicae*. Vol. 2. Leipzig.